BBS Express!
1030/XM301 and 850 versions

by Keith Ledbetter

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Orion Micro Systems

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BBS Express!

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Introduction

Thank you for choosing BBS Express! as your bulletin board system. Express! is the most dependable, as well as the quickest, bulletin board system available for your 8-bit Atari.

This manual is arranged in a manner which will take you through the steps to get your bulletin board system up and running quickly. The topics covered are arranged in step by step procedures covering the main elements of setting up Express!, which are:

1. Choosing a DOS to use.
2. Formatting all needed Data Disks.
3. Creating the user data file.
4. Creating the message bases.
5. Editing/Creating all needed help files.
6. Copying files to their related drives.
7. Booting up and testing your BBS!

While the manual is arranged in a step-by-step fashion, there are still areas which depend heavily on other (later introduced) options. Because of this, it is recommended that you read this manual in its entirety before attempting to set up the board. Configuring your board will be a much easier task if you do!

The most important thing that can be stressed with Express! is to THINK and PLAN ahead. Express! gets its speed by pre-allocating both the userlog and the message bases to their absolute maximum size. This is most evident on the message bases, where a full base with 75 messages can be loaded in under 2 seconds! Not only that, but because of Express's unique message base structure, you (the Sysop) will NEVER have to compact message bases! Express! does this automatically, while the caller is online, when a message base fills up. For Express! to delete a message requires roughly a couple of milliseconds, since all that must be done is to delete a pointer from RAM.

Also, the importance of frequent backups can't be stressed enough. You will find that BBS Express! can run for literally weeks without ever being taken down, so you might have a tendency to get a little lax on the backups. Please, don't fall into this trap. In six months of testing at two sights (24 hours a day, 7 days a week), Express! crashed only twice, and neither were attributable to Express!. Once was when the power went off (Keith is still working on the 'power

supply' code!) and the second was when a disk was physically worn out and a bad sector popped up. The moral of this is that these things WILL happen eventually, so make sure you are always prepared!

On the note of backups, you MUST back up your disks that contain the user log and message bases WITH A SECTOR COPIER OR DUPDSK function if you are using an Atari 2.0 compatible DOS. The user log and message bases CANNOT be restored as a file. The entire DISK must be restored. This is because these files are heavily indexed by sector number. With any Atari 2.0 compatible DOS, the file must always reside on the same physical sectors that it was originally created on. If you are using SpartaDOS 2.x or greater, then you may freely copy both message bases and user log by DOS file copying. This is due to the fact than Sparta DOS handles notes and points differently than Atari 2.0-compatible DOS's.

With these words of warning, let's get started on setting up your BBS!

Getting Started

Now, before we start setting up your BBS system, you must make a big decision. Which DOS are you going to use? This is probably the biggest decision to be made under Express!. Are you going to be using a RAM disk? How many disk drives are you using?

If you have an XL or XE computer, Orion Micro Systems recommends that you use SpartaDOS (version 2.x or greater). This is a very powerful DOS, with a very low LOMEM and excellent Ramdisk support. In addition, message bases and user log may be DOS file copied, which makes moving the message bases much easier should that need arise in the future.

If you prefer to use another DOS for your BBS system, then the only requirement is that it can be configured not to conflict with the modem handler. This means you must be able to get the LOMEM value down to around the area of $1E00. Since there are so many DOS's available today, there is no 'cut and dry' configuration set-up, and it is likely that there will have to be some experimentation on your part by configuring for different number of drives and buffers to get things to work properly. If you are currently using the terminal program 1030 Express! or 850 Express!, then the same configuration's will work fine with BBS Express!, since the handlers load in at the same location in memory.

Before we go any further, you should make a back-up copy of both sides of your original Express! disk. Express! is not copy-protected, so you can either copy it with a sector copier or by a file-by-file copy from any DOS. Once you have backed up your original disk, file it away in a safe place and use your backup version from here on out.

At this time, you should also format a blank diskette with the DOS that you have chosen to use for your BBS. Then, copy the files from the FRONT side of the Express! disk to it. This is so that you will be running all of the creation programs under the same DOS that you plan to use on the BBS. If you are using SpartaDOS and have an Atari 1050 disk drive with a US Doubler installed, you can format the disk using the high speed option. This will speed up the booting process as well as the file creation process. The high speed option can also be used when formatting your working data disks.

The next step is to format blank disks with NO DOS. You will need to format a fresh disk for each drive that you plan to use on the BBS system. After you have formatted these

disks, label them appropriately so there will be no confusion once you have actually started the configuration process (ie: Data Disk 1, Data Disk 2, etc.).

Throughout this manual, you will see the words PATHNAME and FILENAME used quite a bit. You should understand the definitions of these terms before continuing to configure BBS Express!.

PATHNAME - To the BBS, a pathname is the text string that PREFIXES the actual dataset name. When the BBS uses a pathname, it will append the dataset name that it wants onto the END of the pathname. If you are using a DOS that doesn't support pathnames (such as DOS 2.0 or DOS 2.5), then the pathname will only be the drive specifier, such as 'D1:' or 'D8:' (note the colon!).

FILENAME - A filename to the BBS is the FULL specifier for the file, including drive specifier, path name, dataset name, and extender.

Here are some examples:

FILENAME	PATHNAME
D1:USERLOG.DAT	D1:
D2:BBSDATA>USERLOG.DAT	D2:BBSDATA>
D8:MENUS>MAIN.HLP	D8:MENUS>
D3:LIBRARY.HLP	D3:
D8:MENUS:MAIN.HLP	D8:MENUS:

As you notice above, some DOS's like SpartaDOS use the '>' character as the path specifier, while other DOS's like MyDOS use the ':' character. You must use the correct path specifier for the DOS that you are using!

Creating the Userlog

   Now that you have all of your data disks formatted to their proper density, we are ready to begin. The first thing that needs to be done is to create the user log dataset, which is the dataset that contains information on each user of your BBS.

   This process requires some thinking ahead on your part, since the ENTIRE userlog is pre-allocated. You should plan on setting up for the maximum number of users that you ever want to allow on your BBS. You may later decide to extend your userlog by utilizing the UEXTEND.COM utility supplied on the Express! disk. Decide how many users you want as a maximum on your board (if you figure on, say, 150 maximum, why not pad on an extra 25?). Once you have decided on the number of users, insert the back-up version of your Express! disk in drive #1, and load and run the file MAKEULOG.COM. Once the program boots up, you will be prompted with 'MAX ENTRIES -->'. Enter in the max number of users you want allocated and press RETURN. The program will next prompt you to 'Insert Disk to Create Files, Then Press The START Key'. Put your freshly formatted data disk into drive #1 and press START. The program will grind away for a while (more users - longer run time). When the program completes, you have finished step one in getting your BBS system up and running (I TOLD you it was easy!). The data disk now contains 2 additional data sets, which are the userlog data file and the userlog index file. They are named USERLOG.DAT and USERLOG.IDX, respectively.

Security Levels

The security level scheme used by BBS Express! is at the
BIT level. What this means is that each of the 8 bits in the
user's security level byte correspond to one of the 8
security levels. The main reason behind this security level
scheme was to give you more flexibility in giving people
access to different parts of your BBS. With this security
level system, you validate users level by level starting with
level 1 and carrying up through level 8. The advantage to
this scheme is that you can selectively give people access to
a higher level feature WITHOUT giving them access to lower
features. For example, you can give users access to level 5
functions but NOT give them access to level 1 and level 2
functions, if you so choose.

Perhaps a thorough explanation of how the BBS validates
users would help make this more clear. There are security
levels of 0-8 for both message bases and download files.
Assume that message base #3 has a security level of 6. Here
is what would happen when the user tried to enter base #3:
        If BIT 6 of User's Security Level - 1 then
            Allow Access
        Else
            Don't Allow Access
  Great, you say. But how do you figure out these security
levels? Well, if you are using the UEDITOR.COM to change the
user's security level, you will be prompted BY LEVEL for
whether the user has access to level 1 functions, then level
2 functions, etc. If you are validating the user while
he/she is online, then you are on your own to add up the
correct bit patterns. But, it really isn't that difficult.
Let's look at the following chart:

Security Level	1	2	3	4	5	6	7	8
Amount to Add	1	2	4	8	16	32	64	128

Using the above table, you can see that to give a user
access to level 1, 4, and 5 functions you would add 1 + 8 +
16 for a security level of 25. Pretty simple, huh? A SYSOP
security level is 255 (which is all of the numbers above
added together). You CAN give users access to level 8
functions AS LONG AS AT LEAST ONE LOWER LEVEL FUNCTION IS A
ZERO. If you give them access to ALL of the levels, then
they have just become a SYSOP as far as the program is
concerned.

This same scheme is used on download files, too. When a
user is browsing files and the BBS finds a level 2 file, it
will only show the file to the user if their BIT 2 is turned
on.

The Message Bases

We are now ready to configure the message bases for your BBS system. This, too, requires some thinking ahead on your part. Express! allows you some very powerful options regarding message bases, so we will discuss the message base layouts before proceeding on.

Under Express!, you can control the number of message bases that are available to the user. Some sysops may want more bases and less download space, while others will prefer having only one or two bases, leaving more disk space for other things. Once you have created your message bases, they will never grow any larger (in disk space) than what they were originally. This makes it possible for you to take your free sectors on a disk down to where the disk is almost full, without any worries of getting 'disk full' errors. There is a price that must be paid for this kind of luxury: once a message base has been allocated, the number of messages / bytes per message sizes CANNOT be changed without deleting the existing base (and all of its messages) and creating a new message base or by creating a new message base and running the utility LOADBASE.COM which will copy all messages in the old message base to the newly created message base. More about this procedure later.
So, once again, the moral is PLAN AHEAD!.

The things that you should decide on ahead of time are:

* How many message bases do I want on my system?

* What is the number and name of each message base (15 chars max).

For example, base one might be 'GENERAL', base two might be 'QUESTIONS', and so on.

* What is the security level of each message base?

Each message base may have a security level of 0 - 8. This allows you to set up special bases like a 'user group' base, and then selectively allow only certain users to access those messages.

* On what disk drive do I want each message base to be?

Each message base can be on any disk drive you wish. Message bases can be on RAM disks if you are utilizing SpartaDos and may be periodically copied to a floppy disk for permanent backup. But, fair warning, if your message bases reside on ramdisk and you lose power, you will lose all messages posted since your last backup.

* How many messages do I want allocated for each board?

Each base may be allocated for a different number of
messages. For example, you could set up base one to have a
max of 50 messages, but set up base two to have a max of only
25 messages. There is NO message base compaction required
under Express. What happens is the system DELETES a message
when it needs to. For example, lets say that you set up base
1 to have a maximum of 50 messages. When a user posts a new
message on that base, Express will check to see if there are
already 50 messages there. If there are, then Express will
delete message number one, roll everything up, and post this
new one as message number 50!

* How many characters per message do you want each message
to be?

The message editor of Express! works not on a 'number of
lines' basis, but on a 'bytes per message' basis. This
allows you the ability to make your BBS appear to be much
bigger than it really is by creating more message bases with
lower specifications on the bytes per message. A good
starting point to think about is 1000 bytes per message. I
know that doesn't sound like a very big message, but you
would be surprised at how much a user can put into a 1000
byte message. This value can be anywhere from 100 bytes per
message up to 1750 (a HUGE message).

There is one special message base that you should always
allocate: base # 100. This is the Electronic Mail area. As
far as Express! is concerned, E-mail is just another message
base (although to the user, it looks totally different). You
should ALWAYS allocate a Board # 100! Also, ALWAYS set the
security level on Board #100 to zero. This will allow level
0 users to leave feedback to you.

At this point, you may want to try out the BASIC program on
your Express! disk called CALCSIZE.BAS. This small program
will let you calculate the size (in sectors) of differently
configured message bases. The program will ask two
questions: [1] How many bytes per message, and [2] How many
messages max for the base. It will then tell you
(approximately) how many sectors, in both double and single
density, that certain configuration would take up on your
data disk. This is a good way to 'play around' with
different settings, enabling you to get the most out of the
disk space that you have available.

Creating Your Message Bases

Now that you have decided on the different allocations for your message bases, we are now ready to create them on your data disks. Place your Express! disk into drive one and load the binary file MAKEMSGB.COM (If you want to create your message base in a sub-directory, you must first perform a 'change working directory' command on the data disk where the message bases will reside). When the program boots up, you will be asked the following questions (for each different message base):

    * Board Num -->

Key in the board number that you want to create (boards MUST be numbered from 1-<last> CONSECUTIVELY (you can have up to 25 boards, numbered from 1-25).

    * Board Name -->

Enter in the name of this board (up to 15 characters long). This name will actually appear in the message base prompt when the user is on this base. The name can contain inverse and/or lowercase letters.

    * Sec. Lvl -->

Enter the security level for this particular board. A security level of zero will allow ANYONE (even first time callers) to access this message base.

    * Max Msgs -->

 Enter in the maximum number of messages that you want allocated to this base. This can be anywhere from 1 to 75 messages.

    * Bytes/Msg -->

Enter in the size (in bytes) to which you want to limit each message in this message base. The absolute maximum size is 1750 bytes per message.

    * Which drive to create on?

Enter in the number of the disk drive on which you want this board created. This has NOTHING to do with where the board will be once the system is running (that will be specified in the SYSDATA.DAT file that we will cover later). This option simply allows you more flexibility when , allocating your bases. MAKE SURE that you insert the correct data disk for this board! In other words, if you want message base 5 to be on disk drive #2 when the board is

running, make sure that you insert Data Disk #2 into the
drive that you just specified!

   At this point, the program will prompt you to insert the
data disk into the drive that you specified above, and then
to press the START key. Once you do this, the program will
create the message base on your disk, and will then return to
the 'Board Num.-->' prompt to allow you to continue this
process and create your next message base.

   When you have completed this process for every one of your
message bases, you should then do the E-Mail base, which is
board #100 (see above). Don't forget, set the Board # to
100, and the security level to 0!

   When you are finished creating all your message bases
including Email, enter a '0' at the 'Board Num.-->' prompt to
exit the program.

The System Data File

Well, if you have made it this far, you can pat yourself on the back! We are now in the homestretch, and should have your BBS system on-line in no time! At this point, it is time to move on to the data files required for Express! to run. The first file we will create is one of the most important. This is the file called SYSDATA.DAT. There is a utility called SYSEDIT.COM on your Express! disk that is used to edit and/or create your SYSDATA.DAT file. Place your Express! disk into drive one and load the binary file SYSEDIT.COM. When the program finishes loading, you will be prompted to either enter the fully qualified filename of your SYSDATA file or to simply press RETURN to create a new one. If you enter a filename, then the program will try to read that file in to be edited. You must enter the FULL name of the file, including the drive specifier and any path names (if applicable).

We will now cover each command available in the SYSEDIT program along with it's function to the BBS program itself.

"+" command

The '+' command will toggle between the three 'pages' that are used while in the SYSEDIT program.

A. Hi Message Number

The A command allows you to modify the current 'high message number' on your BBS. You should enter a '1' here. After that, you should refrain from ever changing this number, since an incorrect value here could have very strange side effects to the operation of your BBS.

B. Total Calls

With this command, you can specify the total number of calls that your BBS has received. If you are just starting a BBS, you should enter a '0' here. If you have been running a board under different software, enter the number of calls your board has received to date.

C. Total Calls Today

This field represents the number of calls that your BBS has received since 12:00 am of the current day. The BBS program will automatically zero out this field when the day rolls over to the next day. This field is also represented by a variable tag field, which is &35.

D. Number Of Bases

   In this field, you must enter the number of message bases
(NOT counting the E-Mail base) that your BBS has.

E. Call Mode

   A zero in this field means that the BBS will only accept
ATASCII callers, while a one signifies that the BBS will
accept either ATASCII or ASCII callers.

F. Feedback Mode

   A zero here means that all 'F'eedback to the sysop will go
to the printer. If this field contains a one, then the
feedback will go into the E-Mail base as normal electronic
mail, making it much easier for you to answer feedback.

G. Level For Uploads

   In this field, you specify the level that you want uploads
to be placed at. This field must have a value of 0-9. If
the level is placed at 9, then ONLY sysop level users will be
able to see the file before its level is lowered.

H. Download Ratio

   This field specifies the 'upload to download ratio' that
you want for your BBS. The number you enter is simply the
number of downloads that a user can do before they must
upload a file. For example, if you enter a 10 in this field,
when a user tried to download a file, the BBS would divide
their total downloads by 10. If the number divided by 10 is
greater than the number of uploads that they have done, then
the BBS will not allow the user to download the file.

I. Initial Security Level
J. Initial Time Limit

   Here you tell the BBS system what security level and time
limit that you want NEW users to get (those that request a
permanent password).

K. Secondary Password

   Since all of the BBS Express! sysop commands can be
executed from a remote terminal, this field is used to
provide more system security. You specify here a secondary
password that all sysop-level callers must enter before they
are allowed access to the BBS.

L. Userlog DATA Name

   In this field, you must specify the fully qualified

FILENAME of your userlog dataset. You can simply enter
"D1:USERLOG.DAT" into this field or any filename you chose.

M. Userlog INDEX Name

   In this field, you must specify the fully qualified
FILENAME of your userlog index file. As you did above, you
can just specify "D1:USERLOG.IDX" or the same filename you
specified above with an extender of IDX.

N. Message Base Pathname

   Here you must specify the PATHNAME to be used for your
message bases. You must include the "D#" specifier, even
though its value is not used. The BBS will use the "Base
Specifier" (option Q below) to replace the "D#" with the
correct drive number for each message base. If you have your
message bases spread out over more than one drive, the
pathname MUST be the same on each diskette. For example, if
you specify a pathname of "D1:BASES>", then there must be a
sub-directory called BASES on EACH of your disks that contain
message bases. If you are not using sub-directories for your
message bases, then the value here should be 'D1:'.

O. Help File Pathname

   In this field, you specify the PATHNAME where all of your
.HLP files are located (i.e.D8:HELPFILE> or just D8:).

P. File For Log Messages

   In this field you specify the FILENAME where you want all
of the log messages to go. These are the messages BBS
Express! puts out when a user calls. Express will log the
Call Number, Users Name, Users City and State, Logon Time,
Baud Rate, Logoff Time and any uploads or downloads that the
user performs during the call. If you want these messages to
go to a printer, then specify "P:". If you would prefer them
to go to a disk file, then enter the fully qualified filename
of the disk file. Since the LOG routine must open the file
in APPEND mode for each line it writes out, it is recommended
that you only specify a disk file that is on ramdisk. If you
are using SpartaDOS, then writing to a floppy disk is
acceptable also, since SpartaDOS does not read the entire
file when it is opened for APPEND mode.

Q. Base / Drive Specifiers

   This field is simply a long string of numbers, telling the
BBS which drive (1-8) the corresponding message base is found
on (1st position - base one, 5th position - base five, 26th
position - Email base). So, starting in position #1, enter
the drive number that each existing message base will reside.

R.   Sysop Defined Commands

In this field, you can specify a string of up to 8 characters that define your own personalized commands. For a full explanation of the sysop-defined commands, see the 'Sysop Defined Commands' section found later in this document. If you are not using sysop defined commands at this time, this field should be left blank.

1-8.   Download Paths

The commands '1' thru '8' are used to specify the PATHNAMES that you want the BBS to use for downloads and uploads. The paths will be searched in the order that they are specified (ie: [1] first, [2] second). This also means that when a user uploads a file, the BBS will start searching for free space to do the upload in the specified order, too. You can use this to your advantage by specifying an upload-specific path name as number one. This way, providing there is sufficient space, all uploads will always go to the same pathname. Here is an example setup:

    1.   D2:UPLOADS>
    2.   D3:UPLOADS>
    3.   D4:DOWNLOAD>
    4.   D5:
    5.   D1:
    6.   D8:

Using this setup, here is what will happen when a user uploads a file. The BBS will search the above paths in order looking for free space. If there is enough room on drive 2, then the file will get uploaded to the path D2:UPLOADS. If drive two doesn't have enough room, then the BBS will check drive 3. If room is found there, then the upload will go to the path D3:UPLOADS.`

This will continue until either enough room is found, or the BBS determines that you are out of disk space, at which point the upload will be aborted and the user would receive a message saying 'Sorry...No Disk Space Is Available.'.

When a user does a Browse files command, the BBS will also search in the above order to display any files available for downloading.

S.   Download Path Defines

In this field, you specify the density of each download path that you specified with the '1-8' commands above. The allowed values here are: (O) Path not used, (S) Path is a SINGLE density path, and (D) Path is a DOUBLE density path. If you do not specify a pathname for one of the paths 1-8 above, then that entry will be specified as O. So assuming

all your drives are double density with the exception of D8:, which is a single density ramdisk, this option would look like this using the above paths: DDDDDS00   In this example, paths 1 thru 5 are used for up/down loading and are double density drives.   Path 6 is used and is single density.   Paths 7 and 8 are not used for up/downloading.

   After you have finished editing your SYSDATA file, press the ESCape key to exit.   You will be prompted to enter in the fully qualified filename , including the drive specifier, to write this new data file to.   In most cases, you will respond with the same name that you entered for the input file.

Sysop-Defined Commands

One of the features of BBS Express! is the ability to have up to 8 commands that you can define for your own use. These commands can be used to view any text file, and can be thought of as additional 'Library' type functions.

These commands can only be invoked from the main command prompt. As an example, let's assume that you want to add a command to view a text file that contains information about your local computer club. The first thing you must do is to figure out what letter you want to use for the command. It must be a character that is not currently used from the main command menu. In this example, we will use the letter 'Z'.

First, you would edit your SYSDATA.DAT file with the SYSEDIT command. You would change the 'Sysop Defined Commands' field to include a 'Z'. Next, exit out of the SYSEDIT program and re-save the file.

At this point, you would now need to load the PROMPT.DAT file into a word processor. If you look through the PROMPT.DAT file, you will see eight definitions for the sysop-defined command prompts. Since this is the first sysop command added, you would change the prompt that corresponds to the first command to say something like "Computer News@". This is the string that will get displayed when the user presses the 'Z' key.

The prompts correspond directly to the order of the commands specified in your SYSDATA.DAT file. In other words, if you had four sysop commands defined, let's say 'ZEX#', then the first prompt in the PROMPT.DAT (number 143) would go with the 'Z' key, the second (number 144) would correspond to the 'E' key, and so on.

At this point, there are only two other things that you must do. One is to recompile your PROMPT.DAT file using the COMPILER.BAS program. Then you must create a text file called YOURZ.HLP. This is the file that the BBS will read whenever the user hits the 'Z' key. The format of this filename is always YOURx.HLP, where x = the sysop defined command. This file MUST be in the same location as your other .HLP files. These files may also be turned into selection menus by placing the word MENU in the first line of the file and formatting the file the same as if it were a library text file.

Variable Tags and The Help Files

We are now ready to cover the help files, which are
signified on the back side of your Express! disk by the
extender .HLP. These files contain text files ranging from
system menus to user status files to logoff messages.

The help files that are on your Express! disk are generic
in nature but could very well be used now if you are in a
hurry to get your system up and running. If this is the
case, then copy all of the .HLP files to your correct data
disk (the one you specified in the SYSDATA.DAT file above),
and skip on to the next section.

Still with me, huh? OK, then let's cover a very
interesting feature of the help files before we get started.
This is the 'variable tag' information. .If you will read the
file LOGSTAT.HLP into your text editor now, you will see what
the variable tags look like.

What? What are all of those strange '&' symbols? Well,
those are the 'tags' that you have available to you for use
in all of the .HLP files. What a tag does is signify to
Express! that it should display a PROGRAM VARIABLE at that
point in the text file. These tags are made up of two pieces
of information. First, there is the '&' sign, which signals
Express! to prepare to display special information. Second
is the tag-number, which MUST be two characters in length,
and is a number between 1 and 36. There are 36 separate
variables that Express! can display. Tag 36 is the BAUD RATE
tag and is only valid for the 850 version of BBS Express!.
Here are their numbers and corresponding information:

```
&01 - The user's NAME (only after completely logged on).
&02 - The user's PASSWORD.
&03 - The user's CITY.
&04 - The user's STATE.
&05 - The user's PHONE NUMBER.
&06 - The user's LAST CALL DATE.
&07 - The user's SECURITY LEVEL.
&08 - The user's CONNECT TIME (for today).
&09 - The user's TIME LIMIT per day.
&10 - The user's HI MESSAGE COUNTER.
&11 - The user's UPLOAD count.
&12 - The user's DOWNLOAD count.
&13 - The user's PARAMETERS (you shouldn't use this).
&14 - The user's TOTAL CALLS to this BBS.
&15 - The TEMPORARY user NAME (see below).
&16 - The TEMPORARY user CITY.
&17 - The TEMPORARY user STATE.
&18 - The TEMPORARY user PHONE NUMBER.
&19 - The CURRENT DATE in the form Sat 29-Mar-86.
```

&20 - The LAST CALLER's name.
&21 - The CURRENT TIME.
&22 - The SYSTEM HI MESSAGE COUNTER.
&23 - The CURRENT MESSAGE BASE user is on (in form 1-25).
&24 - The TOTAL CALLS your BBS system has received.
&25 - The MINUTES CONNECTED for current caller.
&26 - The NAME of the current message base user is on.
&27 - The TITLE of the last read message.
&28 - The AUTHOR of the last read message.
&29 - The DATE stamp of the last read message.
&30 - The TIME stamp of the last read message.
&31 - The NUMBER OF MESSAGES on the current base.
&32 - < for system use >
&33 - The CURRENT DATE in the form 03/29/86.
&34 - The 'TO:' name in each message header.
&35 - The # OF CALLS received since 12:00 am.
&36 - The BAUD RATE of the curremt caller.

You should note that the above TEMPORARY tags (15-18) are
only valid BEFORE the user gets completely logged on. About
the only use for these fields would be in the NEWUSER.HLP
file, so that you could customize your message to NEW users.

In addition, these tags can be present in any of your menus
and help files. If you should ever need to have an actual
'&' in one of your text files, then put in TWO '&' signs (ie:
'this && that' would display as 'this & that' to the user).

The Individual Help Files

We are now ready to move on to the individual help files. There is not much to be discussed here, since the files are fairly self-explanatory. About the only useful information to pass along to you is WHERE and WHEN the different files are displayed. Here is the list of each file along with a brief description of what it is:

SYSOP.HLP

This is the file that is displayed to your screen while the BBS is inactive (waiting for a call). Put your own nice little logo here. In addition you may want to include the 4 logon modes available to you by hitting the 1,2,3 or 4 key. See the section on Sysop Logon Modes for more information on these logon modes.

SYSOPCMD.HLP

This file is the Sysop menu that is displayed when you press '?' from the 'Sysop Command' prompt.

SYSINFO.HLP

This file is displayed when the user selects the 'Info on System' option from the main command prompt. Use this file to tell the user what type of hardware your system is running on, along with any pertinent information (why not tell them the software, too -- we could sure use the advertising!!). You can structure this file as a selection file and have 2 options, one for hardware information and one for software information.

CONNECT.HLP

This file is displayed when a connection is made, BEFORE the user gets the 'Go Atascii, Hit Return' message.

WELCOME0.HLP/WELCOME1.HLP

This file is the first one displayed once the user has logged on. Use this for your signon screen. This file can also be re-displayed if the user selects the 'title page' command from the main prompt. The WELCOME0.HLP file is displayed if the user is in ATASCII mode, and the WELCOME1.HLP is displayed if the user is in ASCII mode. This allows you to have a fancy cursor-art type screen for your Atari callers only.

SYSNEWS.HLP

This is the file you should use for your 'system news'
bulletins. This file is displayed during a user's logon, or
will be shown if the user selects the 'system news' option
from the main command prompt.

LOGSTAT.HLP

This file is the third shown after a user has logged on.
Use this file to welcome the caller to your board, as well as
to tell them things like who the last caller was.

MAIN.HLP

This is the 'Main Menu' file, and will be displayed when
the user presses '?' at the main Command: prompt.

MAINM.HLP

This file is a 'mini-menu' that is displayed when the user
presses the '/' key from the main command prompt.

BOARD.HLP

This is the 'Board Menu' file, and will be displayed when
the user presses '?' key from the message base prompt.

BOARDM.HLP

This file is the 'mini-menu' that is displayed when the user
presses the '/' key from the message base prompt.

EDITOR.HLP

This is the message editor help file, and will be shown
when the user presses '/?' from within the message editor.

NEWUSER.HLP

This is the text file that will be displayed to the user
when he/she logs on as a 'NEW' user. Use this area to
welcome the new caller to the board and to pass along any
important information about your requirements for getting
their password validated. If you want to get the user's real
name, address, etc., then you should include a line or two
telling them to leave 'F'eedback to you with that
information, since Express DOES NOT make new users leave this
type of information.

USTATS.HLP

This is the file displayed when the user selects the 'Your
Stats' option from the main menu.

BLIST.HLP

 This file is the message base list, and is displayed when
the user selects the '*' command from either the Command
prompt or the message base prompt. Use this file to show
what message bases you have available, including their number
and name.

BBSLIST.HLP

 This file is the 'other BBS numbers' list, and is displayed
when the user selects this option from the main Command:
prompt. Place names and numbers of other known operating BBS
systems in this text file.

LOGOFF.HLP

 This is the file that will be displayed to the user when
he/she logs off of the system.

LIBRARY.HLP

 This file is displayed when the user selects the 'L'ibrary
function from the main menu. But, this file does more than
just being displayed to the user -- it also tells Express
what files go with what selections from the library. Not
only that, but you can do 'selection' menus on ANY of your
text files.   When BBS Express! displays a text file, it will
look for the word 'MENU' in the FIRST line of the file. If
the word MENU is there, then Express! expects a 'selection'
text file to follow, with the following components:

MENU
4
D2:CARTOON.MNU
D2:TUTORS.TXT
D3:ORDERING.TXT
D4:CLUBNEWS.MNU

                Main Library Menu

          [1] Cartoon Collection
          [2] BBS Tutorial Files
          [3] Ordering Information
          [4] Computer Club News

 Immediately following the word MENU is the number of
selections allowable on this menu. Following the number are
the files to be displayed depending on the selection that the
user enters. Starting with the next line after the last file
name is the text that you want to be displayed to the user.

 You can chain MENU files as deep as you want, limited only
by the disk space that you have available! In other words,

selecting number 1 above will display the file
D2:CARTOON.MNU, which could be another MENU file for the user
to select which cartoon file they wish to view, as seen
below:

MENU
7
D2:CARTOON1.TXT
D2:CARTOON2.TXT
D2:CARTOON3.TXT
D2:CARTOON4.TXT
D2:CARTOON5.TXT
D2:CARTOON.MNU
D2:LIBRARY.HLP

                    Cartoon Library

        [1]   Cartoon Number One
        [2]   Cartoon Number Two
        [3]   Cartoon Number Three
        [4]   Cartoon Number Four
        [5]   Cartoon Number Five
        [6]   Redisplay this menu
        [7]   Return To Main Library Menu

    As you can see from this file, you can even select the same
file that you are currently viewing, or allow the user to go
backwards in the sub-menu chain by specifying the previous
menu's file name. The MENU files are not limited to the
LIBRARY.HLP file only. You can use this same technique for
ANY text file that the BBS displays, such as SYSINFO.HLP,
BBSLIST.HLP, etc. Use your imagination!

NOTE: There is a limit of 45 entries per menu in each
selection menu.

DLHEADER.HLP

    This is the text file that is displayed at the top of each
'Browse download files' screen.

Download Filename Format

Before we go further, we must now discuss the naming conventions of DOWNLOAD files that will be on your BBS system.

The EXTENDER field is the most important on download files. This extender does 3 things:

[1] It determines the FORMAT of the file.
[2] It determines the TYPE of the file.
[3] It determines the SECURITY LEVEL of the file.

By FORMAT, we mean as in Object File, Action! source code, Saved BASIC, Listed BASIC, etc.

By TYPE, we mean Game, Utility, Home Application, Demo, etc.

For example, let's take a file named LOANS.BAS which is a home application-type program to calculate mortgage payments. Then, let's assume that you have defined the letter 'B' to mean BASIC (this will be covered below - be patient) and the letter 'H' to mean Home Ap. Also, we want this file to be available to everyone, so we will copy the file to one of our 'download' drives (remember? you specified those in the SYSDATA.DAT file), and rename it to:

LOANS.BHO

Now, when Express! displays this file on the 'B'rowse files command, here is what the user will see:

LOANS   ¦ 012 ¦ BASIC ¦ Home Ap

Simple, huh? The third position of the extender is the SECURITY LEVEL of that file. If, for example, you have a file with an extender of .BA3, then this file would ONLY be displayed on the browse files command if the user had a level where Bit 3 was turned on.

Now that we know a little about the extenders of download files, let's carry on with our .HLP files.

DLFORMH.HLP

This file contains the table lookups for the FORMAT of each file when the user is doing a Browse Files command. This provides you great flexibility in being able to set up your own customized format descriptions. Here is an example DLFORMH.HLP file:

OObject
AAction!
BS. BASIC
LL. BASIC
MA.M.S.
XOther

   When a user does a 'B'rowse files command, Express! will
automatically load the file DLFORMH.HLP into memory. Then
when displaying a file, Express will examine the FIRST byte
of the extender and will then search down in memory looking
for a match on this character. If a match is found, then
Express will display the corresponding literal from the above
table.

NOTE: The literals in the table entries may be from 1-8
characters long. There is a logical limit of 100 entries in
the table, but a physical limitation of the possible
characters that can be used in a filename. But, rarely
should you ever need more than the letters A-Z.

DLTYPEH.HLP

   This file is identical in function to the above DLFORMH.HLP
file, except it contains the table lookups for the TYPE of
file, determined by the SECOND byte of the file extender.

   Here is an example DLTYPEH.HLP file:

GGame
MMusic
HHome Ap
BBusiness
UUtility
DDemo
XOther

   Once again, the literals in the table may be from 1-8
characters long.

DLFORMS.HLP

   This file works hand-in-hand with the DLFORMH.HLP file.
This is the SELECTION file that will be presented to the user
when he/she uploads a new file (after all, let your users set
the format of the file for you, right?). Here is an example
of a DLFORMS.HLP file, corresponding with the above
DLFORMH.HLP file:

OABLMX
         Please Choose A Format:

         [O] Object File
         [A] Action Source Code

            [B] Saved BASIC
            [L] Listed BASIC
            [M] AMS Music File
            [X] Other

    The most important line here is the FIRST line (and, it
MUST be the first physical line in the file!). This is the
selection line, and tells Express! what the valid keypresses
to accept are. In the above case, Express! will prompt the
user for 'Selection:', and will NOT accept input unless it is
either an O,A,B,L,M, or X.

    Express! will then use this character as the FORMAT byte in
the new file's extender field.

DLTYPES.HLP

    Have you guessed what this one is yet? You're right! This
is the same as the above DLFORMS.HLP, but corresponds to the
TYPE of the file. Here is another example, this time
corresponding to the above DLTYPEH.HLP file:

GMHBUDX
            Please Choose A Type:

            [G] Game
            [M] Music Demo
            [H] Home Application
            [B] Business Program
            [U] Utility
            [D] Demonstration
            [X] Other

    Here again, Express! will display the text from the second
line down, display a 'Selection:' prompt, and then wait for
input. In this example, only the keypresses G,M,H,B,U,D, or
X would be accepted.
Express! will then use this character as the TYPE byte in the
new filename.
  This file is also used to get the user's 'Browse Files'
specification if he/she hits '?' at the browse prompt.

The Prompt Dataset

You will find a dataset on your Express! diskette named
PROMPT.DAT. This file contains all of the 'prompt
definitions' used by BBS Express!. You can change these
prompts any way that you like (please make your changes to a
backup of the file!).

After changing the prompt dataset, you should run the BASIC
program called COMPILER.BAS. This program reads the text
dataset with your prompt definitions and creates a binary
file that BBS Express! can understand. Once the compile
completes with no errors, you will be asked for the name of
the output dataset. You should name the output file
PROMPT.OBJ, and write it to the disk that you use to boot BBS
Express!. Once Express! boots up, it will load in the
PROMPT.OBJ file immediately, without asking you to insert any
disks.

The PROMPT.DAT file is heavily commented, so there is no
reason to talk about the individual prompts here. Just print
the file off and read through it at your leisure. An
original PROMPT.OBJ file is on your Express! disk so you can
get your board up and running without having to compile the
prompt dataset.

Going Online!

At this point, we are ready to test out your new BBS System! But, before we do, let's go over everything that you should have done by now:

1.   Formatted a disk for each disk drive to be used on your BBS.

2.   Created the USERLOG file.

3.   Edited the SYSDATA.DAT file to match your system configuration, and then copied this file to Data Disk #1.

4.   Created your message bases on the Data Disks that you specified in the SYSDATA.DAT file.

5.   Edited (if necessary) and copied all of the .HLP files to the Data Disk that you specified for the help files in the SYSDATA.DAT file.

6.   Copied all of your download files to the correct Data Disks specified in SYSDATA.DAT. You should have also renamed these files to the format discussed earlier.

If you have done all of these things, then let's try it out! Place your Express! disk into drive #1 and do a binary load of the file BBS.COM. After the program loads in, the PROMPT.OBJ file will be read into memory and you will be prompted with

'Insert Data Disks'

Place all of your Data Disks into their correct drives, and then press the RETURN key. Express! will then load in some data from the drives, and will then display the SYSOP.HLP file. If you are using the R-time 8 cartridge with the 850 version of the BBS, it is not necessary to logon at this point to set the date and time as Express! has automatically set them with the cartridge. If you are not using the cartridge or are running the 1030/XM301 version, then you must logon to set the date and time correctly. To set the date and time, use the fast logon option (Option #1) and go into Sysop mode to perform this task. Once set, your BBS system is ready to accept callers.

The first caller should be you, the sysop, since USER NUMBER ONE IS ALWAYS CONSIDERED TO BE THE SYSTEM OPERATOR. So, what you should do now is log on, just as any normal caller would, to be assigned your password. You can hit '2' or '3' to logon this first time, whichever you prefer. At

the NAME prompt, enter in the name by which you want to be
known on the system. For your password enter the word NEW.
Express! will assign you the first password (you can change
it later from the user editor if you like), and you are now
in business!. Now, from the 'Command:' prompt, go into sysop
mode and set your security level to '255' and your daily time
limit to '255'. After the initial logon to get your password
assigned, you may use the Option #1 (Sysop Fast Logon) to
logon in the future. This logon method bypasses the logon
messages and takes you directly to the checking for mail
prompt.

    You should try out ALL of the options on the board to make
sure that everything is set up properly. If Express! ever
encounters an error, such as not being able to find a file it
expects to exist, it will log a message to the printer. If
this ever happens, then you have probably told Express! a
wrong drive assignment in the SYSDATA.DAT file.

    If everything checks out OK, then you can use the 'G'
command to log off. You are now ready to accept callers. If
you are using a 1030/835 modem with a ring detector, then the
detector MUST be plugged into the SECOND joystick port.
XM301 owners will have no more to do, since your modem has an
auto-answer feature built in. 850 owners should make sure
that the dip switch settings on your modem are set as
follows:

                    Hayes and Smarteam Modems
                        Switch 1 - UP
                        Switch 2 - UP
                        Switch 3 - DN
                        Switch 4 - UP
                        Switch 5 - DN
                        Switch 6 - UP
                        Switch 7 - UP
                        Switch 8 - DN

                        Avatex Modem
        All dip switches should be in the up position.

    If you have a modem other than those mentioned above, you
should refer to your modem manual and set your dip switches
to the following specifications:

    * The modem SHOULD NOT auto-answer the phone.

    * Allow the computer to monitor the CARRIER DETECT RS-232-C
signal to detect a remote modem's carrier signal.

    * Allow the computer to supply the DATA TERMINAL READY
(DTR) RS-232-C signal to the modem. This is used by Express!
to hang up the phone.

    * Allow the modem to recognize its own commands.

Sysop LOGON Modes

There are 4 logon modes that you can use while the BBS is waiting for a call. These are explained below:

1. The 'Quick Entry'

If you press a '1', the BBS program will read the first record in the USERLOG file (which should be your sysop record), and go immediately to the 'Checking For Mail...' prompt. If you log on in this way, the total number of calls will NOT be updated, and the last caller will remain the same. This is really the ideal way to log on.

2. Logon at 300 Baud

This mode logs you on in simulated 300 baud. You will have to enter your name and password. This logon mode does update the last caller and the total calls.

3. Logon Remote

This mode logs you on in remote mode. You will have to enter your name and password in this mode. This logon mode does update the last caller and the total calls.

4. Logon As A User

This mode allows you to log on as any of your users, as long as you know their FULL name. After pressing '4', you will be prompted for the user's name. Just key in the full name of the user, and the BBS will try to find the user's record. If it does, it will log you on as that person. If you can't seem to remember the user's name after 3 or 4 tries, just press the START, SELECT, and OPTION keys to 'hang up' on yourself. You can use this log on mode to validate users without having to take the BBS down! You do this by simply logging on as the user and then pressing the 'S' key to enter the SYSOP command mode. You can then use the 'L' and 'M' commands to set the user's security level and daily time limit. This logon mode does NOT update the last caller or total calls.

The Screen Display

Now that you are ready to accept callers, we should cover the information that you will see displayed at the top of your screen.

First, you will notice that there are 4 status lines at the top of your screen. The first line will always contain the system date and time.

The second line will display the current caller's (or, the last caller's, if nobody is currently logged on) name, password, and last call date.

The third line will show the caller's city, state, and current connect time for this call. There is also an area on this line, indicated by '[---]' which will display '[CHAT]' if this user paged you and you didn't answer.

The fourth line shows the user's security level, time limit (per day), and the file currently being accessed (or last accessed).

The Sysop Commands

The first sysop command we should talk about is entering and leaving CHAT mode. At any time when the program is waiting on input from the user, you can press the ESCape key to enter chat mode. To exit chat mode, simply hit the ESCape key again.

There are certain functions that you, as sysop, can execute while a caller is on-line. To enter the SYSOP command mode, you must enter a '$' command from the main 'Command:' prompt (ONLY!). There are two modes of entry that the program checks for.

The first one is if the '$' came from the BBS keyboard. Anything that you do here WILL NOT be seen by the user who is logged on as nothing is echoed across the modem in this mode. The user will be in a 'do nothing' state, since they will not be able to enter any keypresses.

The second way of entry is if the '$' came from the modem (the caller that is online). If this is the case, and the caller has a security level of 255, then the program will enter the sysop mode and will echo everything across the modem. In other words, you can call your board from a remote location and do EVERYTHING that you can do when you are sitting at the BBS's keyboard.

Once you have hit "$" to get to the sysop command prompt, or a sysop level user has hit the '$' remotely, the following commands are available:

[L] Use the L command to edit the current caller's Security Level. This change WILL be stored in the user's record when he/she logs off of the system.

[M] Use the M command to edit the current caller's time limit per day. This change will also be written to the user's record at log off time.

[F] Use the F command to execute any XIO command to the disk drive. When you hit F, the program will respond with:

XIO #

Key in one of the following numbers:

```
32  - Rename a file
33  - Delete a file
35  - Lock a file
36  - Unlock a file
254 - Format a disk (be careful!)
```

After you have keyed in an XIO number, the program will respond with

        File:

and you should key in the name of the file to be operated on, INCLUDING THE DRIVE IDENTIFIER (D#:).
    So, let's say that you want to rename a file on drive two from ZTITLER.OGO to ZTITLER.OG1 (to raise its security level). You would do the following:

    Sysop: F
    XIO #32
    File:D2:ZTITLER.OGO,ZTITLER.OG1

    You will use this command a lot to rename newly uploaded files to a lower level so that they may be seen by other users (newly uploaded files will have a security level which you specified in the SYSDATA file).

    [C] Use the C command to toggle CHAT mode on and off. If chat mode is turned off, then any user that pages you will get the message 'The sysop is not around...'. If chat is turned OFF, then this will be shown in the status lines at the top of your screen by '[OFF]'.

    [D] Use the D command to display a disk directory. This command will display a LONG directory if you are using SpartaDos. You MUST enter the '*.*' in the filespec. In other words, when the BBS prompts you for the 'Mask ->', keying in 'D2:' will NOT work. You must enter 'D2:*.*'.

    [E] Use the E command to display a disk directory. This command will display a SHORT DOS 2.0 type directory if you are using SpartaDos. If you are not using SpartaDos, then the 'E' and the 'D' commands function identically.

    [P] Use the P command to toggles the realtime clock between AM and PM.

    [R] Use the R command to set the current system date.

    [T] Use the T command to set the system time. You will be prompted to enter the hour and minutes individually. The hour is set in actual time, not military time.

    [W] Use the W command to set the current weekday. Repeat the W command until the current day of the week on the first status line is correctly set.

    [V] Use the V command to view any text file. You will be prompted for a filename. Enter the fully qualified filename including the drive specifier.

[>] Use the > command to copy files. You will be prompted
for both the fully qualified source and destination
filenames.

[?] Use the ? command to display the SYSOPCMD.HLP file which
is the Sysop command menu.

[X] Use the X command to Exit the sysop command mode.

An additional command at your disposal is the pressing of
the START/SELECT/OPTION console keys. When these keys are
pressed while a user is logged on, they will immediately be
logged off. When you press START/SELECT/OPTION, you are
actually 'faking' the program into thinking that the carrier
has been dropped.

Also, when a you or a Sysop level user (255) is in a message
base reading messages, and are waiting at the [A] Again [R]
Reply [Q] Quit [C] Cont. prompt, you may press the 'P' and
the message will print on the printer. This print feature is
also available while in E-mail.

The User Editor

Well, by now you should have your board up and fully functional! The next thing we should discuss is the user editor, which allows you to change any data for any user on your BBS system. For security purposes, this editor is totally an off-line procedure.

The user editor is on the front side of your Express! diskette, and is called UEDITOR.COM. This is a binary load file, and should be loaded either with the 'L' command from DOS 2.0, or by simply typing in UEDITOR from SpartaDOS.

After loading in the program, the editor will instruct you to enter the fully qualified filename of the Userlog Data File. Place the disk with the USERLOG into drive one, enter the fully qualified filename, then press RETURN. Next, you will be asked to enter the name of the Userlog Index or press return if the index is the same name with the exception of the extender. After you do this, the menu will appear. At the top of the screen you will see the number of users that are currently being used.

There are 7 options available in the User Editor. They are:
1. Edit a User
2. Edit by Sec. Level
3. Add a New User
4. Delete a User
5. Mass Sec. Level Change
6. Print User List
7. Exit

To edit a user (or look at a single user's data), hit '1'. The editor will prompt you for the user's number or name. From here, you have two options. The quickest way to edit a user is by entering the user's number if you know it. This is the number starting in the second position of the password. For example, if the password is 'A18XYZ', then the user number is 18.

If you don't know the user's password, then you can enter the name of the user (the ENTIRE name), and the editor will search each user entry trying to match on that name. This is quite a bit slower, but will come in very handy.

If you don't know the user's exact name or password, then use the 'Print Userlog' 40-Column option to display the userlog information to the SCREEN.

At this point, you will see the user's data listed on the screen, along with a letter beside each piece of data. To

change anything on the screen, simply press the corresponding
letter, then key in the new information.

You may change the password, too, but DO NOT CHANGE THE
NUMBER IN THE PASSWORD! In other words, if a password is
A20XYZ, you can change it to anything as long as the '20'
remains in the EXACT same position.

To return to the menu at any time, hit the ESCape key, and
the editor will respond with 'Rewrite this record?'. If you
made changes that you want to make permanent on the USERLOG,
then answer 'Y'. If you answer 'N', then no updates will
take place.

To edit users by security level, hit '2'. You will be
prompted with 'Edit On Sec Lvl Of ->'. Enter the security
level that you want to edit and press RETURN. You will then
be prompted with 'Start At Current Position or Beginning Of
File ->'. Enter an 'S' or 'B' and press RETURN. The editor
will start 'Searching' for the next user with the level you
specified and display the record on the screen. You may not
change any information in the users record or leave it as is.
When you are finished editting, press the ESCAPE key. If you
changed the record, you will be prompted with 'Rewrite This
Record?', to which you can respond 'Y'es or 'N'o. Next, you
will be prompted with 'Continue Search or Quit Search ->'.
If you press 'C' to continue, the editor will continue the
search from the current position in the file until it finds
the next user with the specified security level. If you
respond with 'Q', you will be returned to the Editor Menu.
You may continue searching to the end of the userlog or quit
at any time.

To do mass security level changes, hit '5'. This is an
ideal way to periodically change all level 0 users to a
higher level. You will be prompted with 'Change All Users
With A Security Level Of ->'. Enter the security level that
you want to change. Next, you will be prompted with 'To Sec.
Level ->'. Enter the security level that you want to the
users changed to. The editor will start reading the userlog
intil it finds the first user with the level that you
specified you wanted to edit. The user record will be
displayed on the screen and you will be prompted with 'Change
User From SL X to Y?' where X is the current level and Y is
the new level. If you want this user's security level
changed to the new level, respond with 'Y'es. If not,
Respond with 'N'o. The editor will make the change to the
record and proceed to the next user record it finds with the
specified level. When you use this option in the editor, you
may not use the ESCAPE key to abort out in the middle of the
file. It must be read until the end of file occurs.

The other options of the user editor work similarly to the
above functions (or are very self-explanatory).

Extending The Userlog

Note: To use this procedure, you MUST have at least two disk drives!

   No matter how well you plan ahead, there is probably going to come a time when you begin to see your USERLOG data file slowly fill up. There is a program on the front of your Express! diskette called UEXTEND.COM, which will extend the space allocated for your userlog dataset.

   There is a possibility that the use of this command could cause considerable damage to your data disk, SO BACK UP YOUR DATA DISK BEFORE YOU USE THIS COMMAND!

   Why could it cause damage? Well, because of the way Express! pre-allocates files, there is a good chance that you have nearly filled up your main data disks (the ones with the userlog and message bases). And, if we are going to extend the userlog file, then we have to have some space, right? The damage could occur if you accidentally 'over-allocate' and actually fill up the disk (I'm sure we all have went through the headaches of filling up a DOS 2.0 disk, and then finding that the free sector counts don't quite add up anymore).

   What can you do if you DON'T have any more free space on your userlog data disk? One option you have is to DELETE a seldom-used message base, giving you more room for userlog data. Another option is to rebuild a message at a smaller size using the LOADBASE.COM utility (See additional utility section). A third option is to simply move a message base to another drive. If you are using SpartaDos, moving it is all that is required. IF you are using a 2.0 type DOS, then you must re-index the message base with REINDEX.COM after you have moved it.

   With those words of warning aside, let's discuss the use of the UEXTEND.COM program. The first, and most important, step is to try to get an idea of how many additional user records you have room for on your disk. Each user record is 81 bytes in length, so with a little math you can figure out the approximate number you can extend to.

   As an example, let us assume that you have 18 sectors left on your data disk one, which is a DOUBLE density diskette. By doing the following:

         18 - 2   - 16 sectors

          16 * 253 - 4048 bytes

4048 / 81 - 49.97 user records

you will see that you have room for approximately 49 more
user records. To be safe (we DON'T want to accidentally fill
up the disk, remember?), extend your user log by only 45.
The reason that you should subtract 2 from the free sectors
is for system overhead that takes place when a file is opened
in 'append' mode.

   If your data disk is SINGLE density, then you can use the
same equations above, but substitute 125 for the 253 (ie: 16
* 125 - 2000 bytes).

   Now that you have decided on how many users you can have,
here is what you must do to extend the size of the user log:

1. Make a BACKUP of your Data Disk 1 (PLEASE!).

2. Copy the current USERLOG.DAT off to another disk. This
file will be used to do the re-build from.

3. Run MAKEULOG.COM to delete the current USERLOG and create
a NEW one with the new maximum number of users. Do this to
your Data Disk 1 (this is why a backup is so important!).

4. Run UEXTEND.COM and follow the prompts. You will have to
place the new USERLOG disk (Data Disk 1) into drive 1, and
the old USERLOG.DAT (the file that you created in step 2)
into drive 2.

5. Once the menu appears, select option 1 and the current
users will be re-created into the new larger userlog you just
created.

   After doing this, you should boot up the EDITOR.COM program
and do a "spot check" of different users, just to make sure
that everything looks OK. The easiest way to do this is to
look at every 25th user's data by simply editing user number
1, then 25, 50, 75, etc.

Additional Utility Programs

LOADBASE.COM

The LOADBASE program will take a message base as input and
write the messages from it to another separate output message
base. This allows you to change the size of your message
base without losing any messages. All you have to do is to
run MAKEMSGB.COM to create a new message base with the size
configuration that you want. Then, load and run LOADBASE.COM
and enter the OLD message base name as the 'FROM' dataset,
and the NEW message base you just created as the 'TO' message
base.

This utility checks for all kinds of size differences and
will adjust the new message sizes accordingly. For example,
if you have an old message base specified with a max message
length of 1400 and try to load it into a new message base
with a max message length of 1000, LOADBASE will truncate any
messages over 1000 bytes in length.

REINDEX.COM

This utility will take an existing message base as input
and rebuild the index. If you are using a DOS other than
SpartaDOS, you can use this utility if you ever need to MOVE
a message base from one disk drive to another (ie: change
message base #1 from residing on drive one to drive two).

To move a message base to another drive, do a DOS COPY
command to copy the message base to the new data disk. Then,
run REINDEX.COM to re-build the index.

If you are using SpartaDOS, then YOU CAN FREELY MOVE YOUR
MESSAGE BASES AROUND WITHOUT HAVING TO RE-INDEX THEM. Not
only that, but with SpartaDOS, you can back up your message
bases while the board is running by using the COPY command
from the sysop command prompt!

EDITBASE.BAS

This utility allows you to change the name, and/or security
level of any existing message base including the E-mail base.
To use this utility, you must have basic enabled. Load and
run the program which will prompt you for the filename of the
message base to be edited. Follow the program prompts to
perform the necessary changes to the message base.

Sample Board Configuration

On the back side of the BBS Express! disk is a completely configured and ready to boot BBS. This is intended to give you a feel for how the board runs and to use as a guide to configuring your own board.

To use this sample configuration, insert the front side of your BBS Express! backup disk into drive #1 and turn the computer on. Make sure you have the modem and interface (if used) turned on. When the DOS finishes loading, load and run the program BBS.COM. (Note: This sample board has been configured using Atari DOS 2.0. Be sure to use a DOS that is Atari DOS 2.0 compatible. SpartaDOS should NOT be used to run this sample configuration.) When Express! prompts you to 'Insert Data Disks', turn the back-up disk over and insert it back into drive #1, then press RETURN. While this configuration only uses drive #1 and has a small userlog, one message base and E-mail, it is a full working version of the board.

Logon to this sample configuration using option #2 or #3. The userlog has been configured with 'SYSOP' as the first user and a password of 'A1BBS'. Once logged on, go into Sysop Mode by pressing '$' at the COMMAND prompt. Now press the '?'. You should now be able to see the Sysop Command Menu. Set the correct date and time using the 'R' and 'T' commands. Set the correct day of the week using the 'W' command. Next, set the AM/PM indicator using the 'P' command. Now press the 'X' key. This will take you out of Sysop Mode and back to the Command prompt.

Take a moment to explore the board and get a good handle on how it operates. This should help you when you get ready to configure your own version of BBS Express!. As you move around the various parts of the board, notice the right hand side of the bottom status line. This field is the filename that is being accessed or the last filename that was accessed by Express! If you experience an ERROR 170 while running BBS Express!, this status line will help you identify the filename that BBS Express! could not find. Express! will log the error to the printer if one occurs and keep right on running. To correct this problem should it occur, simply copy the missing file to the proper working disk and try the failing option again.

Finished!

By now you should have a good handle on the operation of
your new BBS. Rather than cover all of the different
commands on the BBS here, we have included text files for
your library so that both you and your users can become
familiar with BBS Express!. These datasets can be found on
the back side of your Express! diskette, and are already set
up to be accessed by the 'L'ibrary command.

We hope you enjoy running BBS Express!, and if you are
satisfied with the quality of the board, please let other
potential sysops know about it. If you are not satisfied
with the system, then let US know immediately! Orion Micro
Systems would like to hear your comments and suggestions on
this software. If you want to drop us a line, use the
address on the cover page of this manual or give us a call on
the support board line. Enjoy!

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